

REMARKS/ARGUMENTS

The applicants' attorneys appreciate the Examiner's thorough search and remarks.

Claims 2, 11, 13, and 21-26 have been cancelled without prejudice.

Responsive to the objection to claim 27, claim 27 has been corrected. Withdrawal of the objection is requested.

Responsive to the rejection of claim 2 under 35 U.S.C. §112, second paragraph, it is respectfully submitted that the term bottom metallized layer complies with the definiteness requirement of section 112 in that it clearly defines the structure of the invention. It has been stated that claim 2 is indefinite in that it fails to define the invention by not stating that the back metallized layer is also a drain contact. It is respectfully submitted that the back metallized layer according to the present invention is intended to function also as a body for thermally connecting the die to a heat sink. Requiring the applicants to recite that the back metallized layer is a drain contact unduly restricts the scope of the invention, and is not warranted under 35 U.S.C. §112. Reconsideration is requested.

Claims 1 and 2 were rejected under 35 U.S.C. §102(b) as anticipated by Vasquez et al., U.S. Patent No. 5,578,841. Claim 2 has been cancelled and its limitations have been added to claim 1.

It is respectfully submitted that claim 1, as amended, is not anticipated by Vasquez et al. in that the device shown by Vasquez et al. does not include a drain contact at the top surface thereof. Specifically, the drain contact 26 of the device shown by Vasquez et al. is on the bottom surface of the die. Furthermore, Vasquez et al. neither teach nor suggest having all contacts (source, drain, gate) on one surface of the die and metallizing the opposite surface of the die in one combination. As noted in the specification, a metallized bottom surface can advantageously serve both as a drain contact, if desired, or a thermal connector for connecting the die to a heat sink. Reconsideration of claim 1 is requested.

Claims 12 and 13 were also rejected as obvious over Vasquez et al. Claim 13 has been cancelled and its limitations have been added to claim 12.

Thus, claim 12 now calls for the source contact, the drain contact, and the gate contact to be disposed on one surface of the die. As explained above, Vasquez et al. fail to show this feature.

Furthermore, claim 12 calls for contact bumps on the first metallizing layer along a first straight row, and contact bumps connected to the second metallizing layer aligned along a second straight row. Claim 1 also calls for the two rows to be parallel. Setting the two rows parallel advantageously simplifies the installation of the device as explained in the specification. No reference, however, has been cited that shows or suggests the latter features. A reference is respectfully requested for the record. Otherwise, allowance of claim 12 is requested.

Claim 27 has been rejected as obvious over Baba et al., U.S. Patent No. 5,321,289. Vasquez et al., and Lade et al. Reconsideration is requested.

Claim 1 calls for a first power electrode and a second power electrode both formed on a first surface of the die in which the first power electrode is connected to diffusions of a second conductivity inside a region of first conductivity in the body of the die, and the second power electrode is connected to the body of the die "through a high conductivity element located outside said region of one conductivity type." None of the cited references show a second power electrode which is connected to the body of the die in the manner set forth in claim 27. Reconsideration is requested.

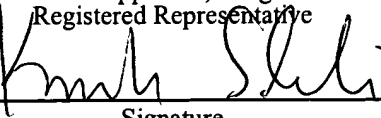
Each of the remaining claims depends from one of claim 1, claim 12, and claim 27. Each of these claims includes other limitations, which in combination with those of its base claims are not shown or suggested by the art of record. Reconsideration is requested.

The application is now believed to be in condition for allowance. Such action is earnestly solicited.

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Signature

August 5, 2004

KS:gl

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Respectfully submitted,



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